a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

12. (amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting, *in vitro*, a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is a structural homolog of adenosine monophosphate; and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

19. (amended) A method for identifying an inhibitor of bitter taste comprising (i) contacting, *in vitro*, a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a solution comprising a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used in part (i), and where the test inhibitor is not a peptide, and then (iii) comparing the level of activation of the G-protein measured in part (i) with the level of activation of the G-protein measured in part (ii), wherein a lower level of activated G-protein in the presence of the test inhibitor has a positive correlation with an ability of the test inhibitor to inhibit the perception of a bitter taste associated with the tastant.

26. (amended) A method for identifying an inhibitor of bitter taste *in vivo* comprising

(i) contacting a taste receptor with a G-protein, selected from the group consisting of transducin and gustducin, and a bitter tastant, under conditions suitable for activation of the G-protein by the bitter tastant, and measuring the level of G-protein activation; (ii) in a separate experiment, contacting a taste receptor with a G-protein selected from the group consisting of transducin and gustducin, the bitter tastant, and a test inhibitor, and measuring the level of G-protein activation, where the G-protein is the same as that used